

## ASCC Natural and Mathematical Sciences Subcommittee

### Approved Minutes

Thursday, October 24<sup>th</sup>, 2024

1:15PM – 2:45PM

CarmenZoom

**Attendees:** Barker, Cole, Dinan, Hadad, Lee, Neff, Vankeerbergen

### Agenda

1. Approval of 8-29-24 minutes
  - a. Barker, Lee; unanimously approved.
2. EEOB 4420 (existing course requesting to drop Honors status—as well as adjusting course description and prerequisites)
  - a. **Comment:** The Subcommittee encourages the department to critically review the syllabus to remove typing errors.
  - b. **Contingency:** The Subcommittee requests that the department provide additional details in the syllabus regarding the group research portfolio to enhance students' understanding of the assignment expectations, including examples of what this project might look like and possible research topics. [Syllabus p. 6]
  - c. **Contingency:** The Subcommittee notes that the credit hours and work expectations statement in the syllabus mentions that students should expect to spend around 12 hours per week engaging with the course. As a 3-credit course, this should be adjusted to reflect 9 hours of weekly engagement. [Syllabus p. 3]
  - d. **Contingency:** The Subcommittee requests that the department include information beyond the boilerplate language in the syllabus regarding accommodations for students with disabilities. Specifically, it is important to include a clear description of the physical activities involved in the trip, encompassing the types of activities planned, the expected level of physical exertion, and any relevant accessibility considerations.
  - e. **Contingency:** The Subcommittee requests that the department use the most recent version of the religious accommodations statement in the syllabus. This updated statement is a result of a directive by the Executive Vice President and Provost and can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). Please note that the link to religious holidays, holy days and observances at the end of the statement is also required to be included in the syllabus. [Syllabus p. 12]
  - f. **Recommendation:** The Subcommittee recommends that the department use the most recent version of the university's recently updated diversity statement if they wish to keep it in the syllabus. The updated statement can be found in an

easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [Syllabus p. 10]

- g. *Recommendation:* The Subcommittee recommends that the department use the most recent version of the Student Life Disability Services Statement, which was updated in summer of 2024. The updated statement can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [Syllabus p. 11]
  - h. Barker, Cole; unanimously approved with one comment, **four contingencies**, and *two recommendations*.
3. Food Science and Technology 1200 (existing course with GEN Foundation Natural Sciences; previously approved for Hybrid; now requesting 100% DL—as well as change to course description, course goals, and course topics) previously approved version is [here](#)
- a. There appears to be a lack of interactive components within the proposed DL syllabus, which raises important questions about how true distance learners can effectively participate in the collaborative experiences that the syllabus encourages students to seek with their classmates. To ensure that these students do not face disadvantages and can achieve comparable learning outcomes, the Subcommittee requests that the department apply strategies to *ensure* that student learning will be interactive.
  - b. While the Subcommittee notes that a set of lab topics has been identified, they ask that the department include examples in the syllabus of lab report questions in addition to details regarding lab instructions, assessment criteria, and data collection.
  - c. The Subcommittee requests that the grading distribution for the course be reevaluated to reflect a more balanced assessment of both lecture and lab components. They ask that assignments be integrated into the course that measure students' understanding of lecture material, as the syllabus indicates that quizzes and the end of semester project may be the sole methods of assessment in this regard. If there are additional methods for assessing content knowledge, then the Subcommittee asks for an explanation to support the current grading structure. [Syllabus p. 8]
  - d. The Subcommittee notes that the course structure consists of 2 credit hours of lecture and 2 of lab, which deviates from the typical format of most GEN Natural Science courses, where 3 credit hours are dedicated to lecture and 1 to lab. In the initial approval of this course (in 2022) with hybrid lab, the NMS Subcommittee had approved the 2/2 structure because the in-person lab was deemed by the committee to be made up of “lecture-type” activities. Indeed, as the Department of Food Science and Technology had indicated in a letter to the subcommittee, the in-person lab will consist of two parts:
    - i. Students will receive detailed instructions and demonstrations of what they will be doing in the upcoming online lab. Since many students may have limited or no cooking skills, there is no substitute for being

able to make explanations in person and have the opportunity to ask questions.

- ii. Students will observe products made in the at-home lab. For example, in the online lab work, there will be variations in formulas, and different students or groups will be assigned to each of the variations (e.g., for bread, one group will be assigned the double yeast formula, another the half yeast formula). These different products will be brought to the in-person lab for observation, evaluation, and sharing of data by all members of the class.

It is the combination of instruction, demonstration, and the fact that “there is no substitute for being able to make explanations in person and have the opportunity to ask questions” (see i. above) as well as the “observation, evaluation, and sharing of data by all members of the class” (see 2 above) that prompted the NMS Subcommittee to consider this in-person lab to be the equivalent of a lecture. In the proposed fully asynchronous online version of the lab, it is really not clear how those crucial components will be taught with the same level of pedagogical interaction. The fully online lab also does not seem to provide time to observe products made at home, evaluate, and discuss the data. Given this, the Subcommittee requests clarification from the department on the rationale behind this structure.

- e. Declined to vote.
4. Astronomy 3810 (new course) (return)
    - a. *Recommendation:* The Subcommittee asks that the department ensure that the reference to the [Office of Institutional Equity](#) in the religious accommodations statement is a hyperlink to the office’s email. Additionally, the Subcommittee asks that the link below be added to the bottom of the religious accommodations statement, as it is a part of the required text. Please feel free to copy and paste these two links into the statement directly from the Subcommittee’s feedback. Otherwise, the full statement with the links can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [Syllabus p. 6]
      - i. **(Policy: [Religious Holidays, Holy Days and Observances](#))**
    - b. Cole, Lee; unanimously approved with *one recommendation*.
  5. Astronomy 3350 (existing course with GEL Data Analysis and GEN Foundation Mathematical and Quantitative Reasoning [or Data Analysis]; request to remove all GEL and GEN, increase credit hours/add lab component, adjust prerequisites and course description)
    - a. **Contingency:** The Subcommittee asks that the credit hour statement in the syllabus be adjusted to reflect exactly what is stated in the [faculty rules](#). Per these guidelines, for the lecture component of the course, there should be 3 hours of in-class lecture per week along with 6 hours of out-of-class work, totaling 9 hours of the course. For the lab component of the course, there should be 2 hours of in-person lab along with 1 hour of outside lab

preparation, bringing the total between lecture and lab to 12 hours of weekly engagement (7 of which come from out-of-class work). Given this, if students spend 5-6 hours working outside of the course per week, they are not meeting the required contact hours. The Subcommittee asks that the department revise the statement to reflect that students are required to spend a minimum of 7 hours per week outside of class to meet the credit hour workload expectations. [Syllabus p. 3]

- b. Barker, Cole; unanimously approved with **one contingency**.
6. Earth Sciences 5201 (new course) (return)
- a. **Contingency:** The Subcommittee requests that the prerequisite and course description sections in the syllabus (p. 1) and curriculum.osu.edu be adjusted to reflect the following concise language (note that ASCCAS staff will work with the department in order to make these changes without delaying the approval process):
    - i. Prerequisites: Math through Calculus III (MATH 2153) or graduate standing or permission of the instructor. Recommended: Math 2168 or experience with linear algebra.
    - ii. Add to the course description: A working knowledge of Python (preferred) or Matlab is necessary for successful completion of the course.
  - b. Cole, Lee; unanimously approved with **one contingency**.
7. Earth Sciences 2207 (new course requesting 100% DL and GEN Theme Origins and Evolution)
- a. For the online syllabus, the Subcommittee asks that the course involve more opportunities for discussion by requiring students to engage in meaningful dialogue, facilitating the process of assimilating diverse perspectives. For example, increasing the focus of interactive discussions could elevate the value of the student presentations. The Subcommittee also notes that writing opportunities in the course are minimal and limited to the exams. They request that the School of Earth Sciences incorporate more varied writing assignments throughout the course.
  - b. The Subcommittee notes that the in-person syllabus indicates that students do not necessarily have to answer the Top Hat question in order to receive points for the day. The Subcommittee asks that it be clarified in the syllabus how evaluations will occur for students who do not complete the Top Hat questions. [Syllabus p. 6]
  - c. The Subcommittee notes that there are references to labs throughout the syllabi despite the course not involving a lab component and asks that this be resolved. [DL syllabus p. 11; in-person syllabus p. 7, 8]
  - d. The Subcommittee recommends that the department use the most recent version of the university's recently updated diversity statement if they wish to keep it in the syllabi. The updated statement can be found in an easy to

copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [DL syllabus p. 17-18; in-person syllabus pp. 10-11]

- e. The Subcommittee recommends that the department use the most recent version of the Student Life Disability Services Statement, which was updated in summer of 2024. The updated statement can be found in an easy to copy/paste format on the [Arts and Sciences Curriculum and Assessment Services website](#). [DL syllabus pp. 18-19; in-person syllabus p. 9]
- f. Declined to vote.